

QPL-25017-19  
15 March 2001

QUALIFICATIONS CERTIFIED  
OCTOBER 2000

SUPERSEDING  
QPL-25017-18  
27 February 1998

QUALIFIED PRODUCTS LIST  
OF  
PRODUCTS QUALIFIED UNDER PERFORMANCE SPECIFICATION  
MIL-PRF-25017  
INHIBITOR, CORROSION/LUBRICITY IMPROVER, FUEL SOLUBLE

This list has been prepared for use by or for the Government in the acquisition of products covered by the subject specification and such listing of a product is not intended to and does not connote endorsement of the product by the Department of Defense. All products listed herein have been qualified under the requirements for the product as specified in the latest effective issue of the applicable specification. This list is subject to change without notice; revision or amendment of this list will be issued as necessary. The listing of a product does not release or otherwise affect the obligation of the manufacturer to comply with the specification requirements.

THE ACTIVITY RESPONSIBLE FOR THIS QUALIFIED PRODUCTS LIST IS THE AIR FORCE, ASC/ENOI, 2530 LOOP ROAD WEST, WRIGHT-PATTERSON AFB OH 45433-7101. THE QUALIFYING ACTIVITY RESPONSIBLE FOR QUALIFICATION APPROVAL IS AFRL/PRTG, 1790 LOOP ROAD NORTH, WRIGHT-PATTERSON AFB OH 45433-7103.

The products qualified to this QPL are listed in two categories:

- a. Category 1 additives are approved for use in fuels which conform to A-A-52557, ASTM D4814, MIL-DTL-5624, MIL-PRF-7024, and MIL-DTL-83133.
- b. Category 2 additives are approved for use in fuels which conform to MIL-DTL-5624, MIL-PRF-7024, and MIL-DTL-83133.

The QPL lists the Government designation, which is also the additive identification; the approving office and date of the letter approval, the manufacturer's name and address, and additive specifications.

NOTE: As required by MIL-PRF-25017, the Relative Effective Concentration (REC) was determined by the Rusting Test Method; the Minimum Effective Concentration was determined by either the Ball-On-Cylinder Lubricity Evaluator (BOCLE) or  $1.5 \times \text{REC}$ ; and the Maximum Allowable Concentration was determined by the lowest of the following: 54 grams of inhibitor/m<sup>3</sup> of fuel,  $4 \times \text{REC}$ , MicroSeparometer Rating, or the change in electrical conductivity with fuels containing static dissipater additive.

AMSC N/A

FSC 6850

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

GOVERNMENT/ MANUFACTURER'S DESIGNATION	TEST OR QUALIFICATION REFERENCE	MANUFACTURER'S NAME AND ADDRESS
<b>CATEGORY 1</b>		
<u>PRI-19</u>		
Relative effective concentration (g/m <sup>3</sup> )	6	AFWAL/POSF Ltr, 9 Apr 85
Minimum effective concentration (g/m <sup>3</sup> )	18	
Maximum allowable concentration (g/m <sup>3</sup> )	22.5	
Density at 15°C (kg/L)	0.89 – 0.91	
Viscosity (centistokes at 40°C)	83 – 102	
Flashpoint (°C, minimum)	60	
Neutralization number	100 – 120	
Ash content (%, maximum)	<0.05	
Pour point (°C, maximum)	-18	
		plant: Apollo Technologies International Corp. 5 South Regent Street Suite 526 Livingston NJ 07039-1617
		plant: Apollo Technologies International Corp. c/o Diamond Chemical Company, Inc. Union Ave. & Dubois St. East Rutherford NJ 07073

#### DCI-4A

Relative effective concentration (g/m <sup>3</sup> )	6	AFWAL/POSF Ltr, 15 Aug 83	Octel Starreon LLC 200 Executive Drive Newark DE 19702-3315
Minimum effective concentration (g/m <sup>3</sup> )	9		
Maximum allowable concentration (g/m <sup>3</sup> )	22.5		
Density at 15°C (kg/L)	0.93 – 0.96		
Viscosity (centistokes at 40°C)	43 – 72		
Flashpoint (°C, minimum)	27		
Neutralization number	100 – 124		
Ash content (%, maximum)	<0.05		
Pour point (°C, maximum)	-18		
		plant: Octel Starreon LLC 7401 Wallisville Road Houston TX 77220	

#### DCI-6A

Relative effective concentration (g/m <sup>3</sup> )	6	AFWAL/POSF Ltr, 15 Aug 83	Octel Starreon LLC 200 Executive Drive Newark DE 19702-3315
Minimum effective concentration (g/m <sup>3</sup> )	9		
Maximum allowable concentration (g/m <sup>3</sup> )	9.0		
Density at 15°C (kg/L)	0.93 – 0.96		
Viscosity (centistokes at 40°C)	40 – 60		
Flashpoint (°C, minimum)	27		
Neutralization number	120 – 150		
Ash content (%, maximum)	<0.05		
Pour point (°C, maximum)	-18		
		plant: Octel Starreon LLC 7401 Wallisville Road Houston TX 77220	

GOVERNMENT/ MANUFACTURER'S DESIGNATION	CATEGORY 1	TEST OR QUALIFICATION REFERENCE	MANUFACTURER'S NAME AND ADDRESS
<u>HITEC 580</u>			
Relative effective concentration (g/m <sup>3</sup> )	6	AFWAL/POSF Ltr, 15 Aug 83	Ethyl Petroleum Additives, Inc. 330 South Fourth Street Richmond VA 23219-4304
Minimum effective concentration (g/m <sup>3</sup> )	15		
Maximum allowable concentration (g/m <sup>3</sup> )	22.5		plant: Ethyl Petroleum Additives Division Route 3 Sauget IL 62201
Density at 15°C (kg/L)	0.91 – 0.925		
Viscosity (centistokes at 40°C)	110 – 136		
Flashpoint (°C, minimum)	66		
Neutralization number	80 – 100		
Ash content (%, maximum)	<0.05		
Pour point (°C, maximum)	-18		
<u>NALCO/EXXON 5403</u>			
Relative effective concentration (g/m <sup>3</sup> )	6	AFWAL/POSF Ltr, 15 Aug 83	Nalco/Exxon Energy Chemicals, L.P. 7705 Highway 90A Sugar Land TX 77478
Minimum effective concentration (g/m <sup>3</sup> )	12	WL/POSF	
Maximum allowable concentration (g/m <sup>3</sup> )	22.5	Ltr, 15 Mar 93	plants: Nalco/Exxon Energy Chemicals, L.P. 7701 Highway 90A Sugar Land TX 77478
Density at 15°C (kg/L)	0.89 – 0.94	WL/POSF	
Viscosity (centistokes at 40°C)	15 – 35	Ltr, 11 May 93	
Flashpoint (°C, minimum)	60		
Neutralization number	80 – 110		
Ash content (%, maximum)	<0.05		
Pour point (°C, maximum)	-18		
<u>UNICOR J</u>			
Relative effective concentration (g/m <sup>3</sup> )	6	AFWAL/POSF Ltr, 15 Aug 83	UOP LLC 25 East Algonquin Road P.O. Box 5017 Des Plaines IL 60017-5017
Minimum effective concentration (g/m <sup>3</sup> )	9		
Maximum allowable concentration (g/m <sup>3</sup> )	22.5		plant: UOP McCook 8400 Joliet Road P.O.Box 1517 McCook IL 60525-1517
Density at 15°C (kg/L)	0.93 – 0.94		
Viscosity (centistokes at 40°C)	55 – 95		
Flashpoint (°C, minimum)	52		
Neutralization number	110 – 126		
Ash content (%, maximum)	<0.05		
Pour point (°C, maximum)	-18		

GOVERNMENT/ MANUFACTURER'S DESIGNATION		TEST OR QUALIFICATION REFERENCE	MANUFACTURER'S NAME AND ADDRESS
CATEGORY 1			
<u>MOBILAD F800</u>			
Relative effective concentration (g/m <sup>3</sup> )	6	AFWAL/POSF Ltr, 15 Aug 83	ExxonMobil Chemical Co. P.O. Box 3140 Edison NJ 08818-3140
Minimum effective concentration (g/m <sup>3</sup> )	12	WL/POSF	
Maximum allowable concentration (g/m <sup>3</sup> )	22.5	Ltr, 4 Feb 91	plant: same address
Density at 15°C (kg/L)	0.84 – 0.88		
Viscosity (centistokes at 40°C)	19 – 31		
Flashpoint (°C, minimum)	38		
Neutralization number	80 – 100		
Ash content (%, maximum)	<0.05		
Pour point (°C, maximum)	-43		
<u>NALCO/EXXON 5405</u>			
Relative effective concentration (g/m <sup>3</sup> )	6	AFWAL/POSF Ltr, 15 Aug 83	Nalco/Exxon Energy Chemicals, L.P. 7705 Highway 90A Sugar Land TX 77478
Minimum effective concentration (g/m <sup>3</sup> )	11	WL/POSF	
Maximum allowable concentration (g/m <sup>3</sup> )	11	Ltr, 15 Mar 93	
Density at 15°C (kg/L)	0.92 – 0.96		
Viscosity (centistokes at 40°C)	40 – 90		
Flashpoint (°C, minimum)	60		
Neutralization number	130 – 160		
Ash content (%, maximum)	<0.05		
Pour point (°C, maximum)	-29		
<u>SPEC-AID 8Q22</u>			
Relative effective concentration (g/m <sup>3</sup> )	6	AFWAL/POSF Ltr, 2 Mar 89	BetzDearborn 4636 Somerton Road Trevose PA 19053
Minimum effective concentration (g/m <sup>3</sup> )	9	WL/POSF	
Maximum allowable concentration (g/m <sup>3</sup> )	24	Ltr, 26 May 94	
Density at 15°C (kg/L)	0.84 – 0.92	WL/POSF	
Viscosity (centistokes at 40°C)	65 – 105	Ltr, 4 Sep 96	
Flashpoint (°C, minimum)	50		
Neutralization number	100 – 130	AFRL/PRSF	
Ash content (%, maximum)	<0.05	Ltr, 25 Feb 98	
Pour point (°C, maximum)	-18		
		AFRL/PRSF Ltr, 29 Sep 98	

GOVERNMENT/ MANUFACTURER'S DESIGNATION	TEST OR QUALIFICATION REFERENCE	MANUFACTURER'S NAME AND ADDRESS
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### CATEGORY 2

#### TOLAD 4410

Relative effective concentration (g/m <sup>3</sup> )	6	AFWAL/POSF Ltr, 15 Aug 83	Baker Petrolite 12645 West Airport Blvd Sugar Land TX 77478
Minimum effective concentration (g/m <sup>3</sup> )	9	WL/POSF	
Maximum allowable concentration (g/m <sup>3</sup> )	22.5	Ltr, 12 Mar 93	plant: Baker Petrolite
Density at 15°C (kg/L)	0.93 – 0.96	AFRL/PRSF	16950 Wallisville Road
Viscosity (centistokes at 40°C)	120 – 220	Ltr, 12 Oct 00	Houston TX 77049
Flashpoint (°C, minimum)	38		
Neutralization number	130 – 155		
Ash content (%, maximum)	<0.05		
Pour point (°C, maximum)	-18		

#### TOLAD 4445

Relative effective concentration (g/m <sup>3</sup> )	6	AFWAL/POSF Ltr, 1 Dec 82	Baker Petrolite 12645 West Airport Blvd Sugar Land TX 77478
Minimum effective concentration (g/m <sup>3</sup> )	19	WL/POSF	
Maximum allowable concentration (g/m <sup>3</sup> )	22.5	Ltr, 2 Aug 93	plant: Baker Petrolite
Density at 15°C (kg/L)	0.93 – 0.95		16950 Wallisville Road
Viscosity (centistokes at 40°C)	10 – 20		Houston TX 77049
Flashpoint (°C, minimum)	60		
Neutralization number	60 – 80		
Ash content (%, maximum)	<0.05		
Pour point (°C, maximum)	-18		

#### TOLAD 351

Relative effective concentration (g/m <sup>3</sup> )	6	WRDC/POSF Ltr, 18 Apr 90	Baker Petrolite 12645 West Airport Blvd Sugar Land TX 77478
Minimum effective concentration (g/m <sup>3</sup> )	9	AFRL/PRSF	
Maximum allowable concentration (g/m <sup>3</sup> )	24	Ltr, 12 Oct 00	plant: Baker Petrolite
Density at 15°C (kg/L)	0.90 – 0.94		5050 4 <sup>th</sup> Street Southwest
Viscosity (centistokes at 40°C)	30 – 50		Calgary, Alberta T2B 381
Flashpoint (°C, minimum)	38		Canada
Neutralization number	95 – 120		
Ash content (%, maximum)	<0.10		
Pour point (°C, maximum)	-18		

GOVERNMENT/ MANUFACTURER'S DESIGNATION	TEST OR QUALIFICATION REFERENCE	MANUFACTURER'S NAME AND ADDRESS
CATEGORY 2		
<u>RPS-613</u>		
Relative effective concentration (g/m <sup>3</sup> )	6	AFRL/PRSF Ltr, 30 Jan 98
Minimum effective concentration (g/m <sup>3</sup> )	9	
Maximum allowable concentration (g/m <sup>3</sup> )	22.5	plant: Champion Technologies, Inc. 115 Proctor Odessa TX 79762
Density at 15°C (kg/L)	0.955 – 0.985	
Viscosity (centistokes at 40°C)	80 – 120	
Flashpoint (°C, minimum)	60	
Neutralization number	115 – 160	
Ash content (%, maximum)	<0.05	
Pour point (°C, maximum)	-18	